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## The Patient With Anxiety: What You Don't Want to Miss

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### Case Presentation

A 55-year-old male with a previous medical history significant for hypertension and diabetes presents to the emergency department (ED) with the chief complaint of chest discomfort and shortness of breath. The patient reports the onset of his symptoms to be about one hour ago while at dinner with family. Review of systems is remarkable for palpitations and generalized weakness. The patient denies nausea, dizziness/lightheadedness, headache, and history of blood clots. As you review his vital signs, the patient states that he has had this feeling before and was diagnosed with anxiety.

Triage Vital Signs: T 98.7°F; HR 122; RR 16; SpO2 98%RA

Although difficult to resist the inclination to assume it is a recurrence of his anxiety, you must first eliminate the possibility of life-threatening conditions. Because no lab test or imaging study can definitively diagnose anxiety and there are numerous medical conditions that mimic anxiety, a complete and thorough history and physical examination must be done.

### Epidemiology of Anxiety

According to the Centers for Disease Control and Prevention, anxiety remains the most common mental health diagnosis in the general population-characterizing 18.1% of all adults in the United States.<sup>1,2</sup> The innumerable and non-specific symptoms that patients experience associated with anxiety and panic attacks combined with the limited accessibility for some to primary care is one of the reasons for the exponential increase in mental health-related emergency room (ER) visits. Between the years 1992 and 2003, mental health-related ER visits increased by 75% with 26.1% of these being anxiety-related.<sup>3,4</sup> And more recently, between the years 2006 and 2013, this rate has continued to climb by 15%.<sup>2</sup>

Although stress, anxiety, and depression are diagnostic codes in 61% of mental health disorder related emergency department visits and one in eight visits involve mental and substance use disorders, patients with mental illnesses tend to have serious underlying chronic medical conditions that cannot and should not be overlooked.<sup>5,2,3</sup> As stated in the "Emergency Psychiatric Assessment" chapter in the second edition of Emergency Medicine, "approximately 50% of patients seeking psychiatric emergency services have a poorly treated or undiagnosed medical condition contributing to their symptoms."<sup>6</sup> The following is information to help identify red flags in the patient presenting with anxiety-like symptoms in an effort to not miss and to treat life-threatening disorders in a timely manner.

### A Review of Anxiety

#### Pathophysiology

While the exact etiology of anxiety is not explicit, several theories involving the release of certain hormones and neurotransmitters have been suggested.<sup>7,8</sup> As Dr. Shelton explains in his article titled "Diagnosis and Management of Anxiety Disorders," any disruption in the body's perceived homeostasis

is defined as a stressor, causing a cascade of hormonal events.<sup>9</sup> These hormones, in effect, alter the serotonergic and noradrenergic neurotransmitter systems leading to the feelings and symptoms of anxiety.<sup>8</sup>

Although not the only mechanism by which this occurs, the release of corticotropin-releasing factor (CRF) from the hypothalamus initiates the hypothalamic-pituitary-adrenal (HPA) axis generating the release of corticotropin (from the pituitary) followed by the discharge of glucocorticoid and epinephrine (from the adrenal cortex).<sup>7,9</sup> Under normal circumstances this sequence is controlled by negative feedback; however, once an individual experiences a physiologic change in homeostasis or emotional arousal, hyperactivation of the autonomic nervous system can result with the amygdala existing as its primary modulator.<sup>9</sup>

Dopamine and  $\gamma$ -aminobutyric acid (GABA) are presumed to have some involvement, as well.<sup>7</sup> Specifically, it is theorized that GABA is decreased in episodes of anxiety considering benzodiazepines, which act to enhance the effect of GABA at its receptor, result in a sedative and anxiolytic state.<sup>7,10</sup>

### Presenting Signs and Symptoms

Symptoms of anxiety include, but are not limited to: dizziness/unsteadiness/lightheadedness, headache, paresthesias, amnesia, fatigue, restlessness, emotional lability, irritability, chest pain or discomfort, palpitations/tachycardia, sensations of shortness of breath or smothering/dyspnea, tachypnea, nausea or abdominal upset, muscle tension, chills or hot flushes, diaphoresis, trembling/shaking, and dry mouth.<sup>7,8</sup>

### Diagnosis and Treatment (Recommendations)

As mentioned previously, there is no lab test or imaging study to definitely diagnose anxiety. However, psychiatrists utilize the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) to make a clinical diagnosis after emergent organic causes of psychiatric crisis have been eliminated.

According to the American Academy of Family Physicians (AAFP), the following are clinical recommendations for the treatment of Generalized Anxiety Disorder (GAD) and Panic Disorder (PD):

#### Level A Recommendation

- Psychotherapy is as effective as medication for GAD and PD with Cognitive Behavioral Therapy (CBT) having the best evidence<sup>11</sup>

#### Level B Recommendations

- Physical activity is a cost-effective treatment for GAD and PD<sup>11</sup>
- Selective Serotonin Reuptake Inhibitor's (SSRI's) are considered first line therapy for GAD and PD<sup>11</sup>
- Antidepressants + Benzodiazepines are quick treatments, but do not improve longer term outcomes<sup>11</sup>

The above treatments, while they are Level A and Level B recommendations, are not entirely practical in the ER setting. With an acutely agitated or moderately anxious patient, therapies that possess quick onsets of action are the most useful. Benzodiazepines are the recommended first-line medications for the short-term management of anxiety.<sup>7,8</sup>

In those patients with milder anxiety symptoms, oral benzodiazepines (clonazepam 0.25mg or alprazolam 0.50mg) are suggested.<sup>7</sup> If symptoms are more severe, benzodiazepines can be given intravenously in the following doses: lorazepam 0.50mg or diazepam and midazolam in 1-2 mg increments.<sup>7</sup>

### Medical Mimics of Anxiety

Certain medical conditions and medications mimic, manifest, produce, or exacerbate anxiety, which makes it difficult to distinguish anxiety from pathologic derangements.<sup>7</sup> Despite this challenge, emergency physicians must be able to recognize and act quickly with regard to the medical mimics of anxiety that are time-sensitive. These life-threatening conditions will be reviewed below and are organized by body system, with the last table representing commonly encountered toxidromes.

#### Neurologic

Patient Presentation	Clinical Condition	Pearl/Pitfall	Treatment
Auras that are commonly described as déjà-vu experiences, feelings of fear, panic, and anxiety, or GI upset	Medial Temporal Lobe Epilepsy <sup>12</sup>	Most common form of focal or partial epilepsy  Usually begins at the end of the first or second decade of life following a non-infectious febrile seizure or head injury  Associated with hippocampal sclerosis on MRI	Anti-epileptic medications  If resistant to medication, surgery
Difficulty swallowing or breathing; paradoxical breathing; tachypnea	Myasthenic Crisis <sup>13,14,15</sup>	Frequently seen in young women (age 20-30) and men (>50)  Caused by medication dose missed, a respiratory infection, emotional stress, surgery or other stressor  Pulse oximetry is not a good indicator of respiratory strength in these patients	Stabilize patient (airway, breathing, cardiovascular support)  Discontinue cholinesterase inhibitors in intubated patients  Transfer to ICU  Identify and address triggers  Symptomatic pharmacologic therapy/plasmapheresis
Dizziness; loss of balance or coordination; severe headache; sudden numbness or weakness	Cerebrovascular Accidents	Evaluate via NIH stroke scale  Motor symptoms will often accompany cognitive symptoms	CT without contrast  If ischemic and no contraindications for tPA, administer tPA

## Cardiac

Patient Presentation	Clinical Condition	Pearl/Pitfall	Treatment
Acute onset of tachycardia and palpitations; lightheadedness; dizziness; chest pain; dyspnea	Supraventricular Tachycardia <sup>16</sup>	<p>May be physiologic (i.e. sinus tachycardia during an asthma exacerbation) or pathologic</p> <p>More common in females than males</p> <p>Most common dysrhythmia found in pediatric populations</p> <p>Treatment is dependent on specific arrhythmia and whether or not the patient is hemodynamically stable</p>	<p>Order and analyze EKG with regard to QRS duration (narrow vs. wide), characterization of onset and termination, heart rate, and relative position of P wave within the R-R interval</p> <p>Hemodynamically <u>Unstable</u>: Shock with DC synchronized cardioversion beginning at 50J and increasing to 200J as needed. If prior to cardioversion, the patient had atrial fibrillation for &gt;48 hours, initiate heparin therapy followed by outpatient oral anticoagulation (follow-up with cardiology)</p> <p>Hemodynamically <u>Stable</u>: If narrow QRS (&lt;120 msec), perform vagal maneuvers. If vagal maneuvers lead to termination, treat underlying arrhythmia.</p> <p>-----</p> <p>Rate control for atrial flutter or fibrillation is with beta-blockers or calcium channel blockers</p> <p>-----</p> <p>If vagal maneuvers fail, administer IV adenosine 6mg with a repeat dose of 12mg if first dose has no effect.</p> <p>Follow-up with cardiology or electrophysiologist</p>
Chest pain or discomfort; dizziness; nausea; paresthesias; palpitations; dyspnea; diaphoresis	Myocardial Infarction <sup>17</sup>	<p>Pay attention to risk factors: men &gt;45 and women &gt;55, tobacco use, history of hypertension, hypercholesterolemia, and/or hypertriglyceridemia, family history of early heart attacks (in male</p>	<p>Order EKG, chest x-ray, and serial troponins</p> <p>Administer non-enteric coated aspirin 325mg</p> <p>Place patient on oxygen (if necessary)</p>

		<p>relatives &lt;55 and women relatives &lt;65), sedentary lifestyle, and/or illicit drug use</p>	<p>Provide nitroglycerin, followed by IV morphine for pain (as long as patient's BP is stable and the possibility of a right ventricular MI has been excluded)</p>
<p>Dyspnea; increased peripheral edema; fatigue; rapid or irregular heartbeat; chest pain</p>	<p>Congestive Heart Failure<sup>18</sup></p>	<p>Increasing prevalence with age</p> <p>Most common cause of acute dyspnea among elderly patients in the ER</p>	<p>Order EKG, chest x-ray, and bedside ultrasound</p> <p>Order BNP, BMP, and troponin</p> <p>Treatment is aimed at the cause for decompensation</p> <p>In severe cases, patient is first stabilized with regard to airway, breathing, and circulation</p>
<p>Chest pain; shortness of breath</p>	<p>Takotsubo Syndrome<sup>19</sup></p>	<p>Weakening of the left ventricle as the result of severe emotional or physical distress</p> <p>Symptoms are indistinguishable from those of an MI and an EKG may show abnormalities similar to those of an MI</p> <p>For a definitive diagnosis: no evidence of coronary blockages on angiogram, a rapid but small rise in cardiac biomarkers (in an MI...cardiac biomarkers take longer to rise but peak higher), an image that shows ballooning</p>	<p>Standard heart failure medications (beta-blockers, ACE inhibitors, and diuretics) are recommended</p>

### Pulmonary

Patient Presentation	Clinical Condition	Pearl/Pitfall	Treatment
<p>Shortness of breath and chest tightness</p>	<p>Asthma Exacerbation<sup>20</sup></p>	<p>Patient will often have accompanied coughing and wheezing</p> <p>In adults and children &gt;5 years of age, serial measurements of lung function (using FEV1 or</p>	<p>Severity determines treatment</p> <p>Administer oxygen to maintain saturation &gt;90%</p> <p>Administer inhaled beta-2-agonist (2.5-5 mg of Albuterol every 20 minutes for 3 doses</p>

		<p>PEF) performed at presentation and again in 30-60 minutes helps to categorize the severity of the exacerbation</p> <p>For children &lt;5 years of age and infants, pulse oximetry at presentation and repeated 1 hour after initial treatment is recommended for assessment of lung function</p>	<p>in <u>adults</u>; 0.15 mg/kg every 20 minutes for 3 doses in <u>children</u> &lt;12 years of age)</p> <p>Systemic corticosteroids are administered to all patients with moderate-to-severe exacerbations and to those who do not respond to initial beta-2-agonist therapy (0.3-0.5 mg of 1:1,000 epinephrine every 20 minutes for 3 doses in <u>adults</u>; 0.01 mg/kg up to 0.3-0.5 mg of 1:1,000 epinephrine every 20 minutes for 3 doses in <u>children</u> &lt;12 years of age)(0.25 mg of terbutaline every 20 minutes for 3 doses in <u>adults</u>; 0.01 mg/kg of terbutaline every 20 minutes for 3 doses in <u>children</u> &lt;12 years of age)</p> <p>Inhaled ipratropium bromide (shown to reduce hospitalizations) can be added to beta-2-agonist therapy (3mL every 20 minutes for 3 doses in <u>adults</u>; 1.5mL every 20 minutes for 3 doses in <u>children</u> &lt;12 years of age)</p>
Worsening dyspnea	Chronic Obstructive Pulmonary Disease <sup>21,22</sup>	Patients will also complain of cough, increased sputum production, and sputum purulence	<p>Order chest x-ray, venous or arterial blood gases, CBC and serum electrolytes</p> <p>As long as patient is mentating appropriately, noninvasive positive pressure ventilation has a Level A recommendation</p>
Pleuritic chest pain; dyspnea; rapid or irregular heartbeat; excessive sweating; lightheadedness; dizziness	Pulmonary Embolism <sup>23</sup>	Pay attention to risk factors: history of cancer, heart disease, recent surgery or prolonged immobility, smoking, supplemental estrogen, and pregnancy	<p>Use the Well's score and then apply the PERC rule to determine who needs a workup and who does not</p> <p>Systemic anticoagulation is the mainstay treatment.</p> <p>-----</p> <p>Unfractionated or low-</p>

			molecular weight heparin with an initial bolus of 80U/kg of ideal body weight followed by a constant infusion of 16-18U/kg of ideal body weight per hour
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### Endocrine/Metabolic

Presentation	Condition	Pearl/Pitfall	Treatment
Tachycardia; palpitations; tremor; nervousness; nausea/vomiting; hyperthermia; sleeplessness	Thyrotoxicosis and Thyroid Storm <sup>24,25</sup>	<p>Presentation is usually triggered by a stressor on the body (acute infection, trauma, or surgery)</p> <p>Can be caused by abrupt discontinuation of anti-thyroid medications or administration of iodine-containing materials</p> <p>May or may not have prior diagnosis of hyperthyroidism</p> <p>In the setting of thyroid storm, cortisol should be very high</p>	<p>Block thyroid hormone production via Methimazole (20-25mg PO every 4-6 hours) or Propylthiouracil (600-1000mg PO loading dose with 200-400mg PO every 6-8 hours)</p> <p>-----</p> <p>Propylthiouracil is safe in pregnancy</p> <p>-----</p> <p>Block the release of thyroid hormone via potassium iodide (5 drops PO every 6-8 hours) or Lugol's solution (5-10 PO every 6-8 hours)</p> <p>Beta-blockade via IV propranolol (1-2 mg/min every 15 minutes with a max dose of 10mg followed by 40-80mg PO every 4-6 hours) or diltiazem (60-90mg PO every 6-8 hours) if propranolol is contraindicated</p> <p>Block conversion of T4 to T3 via corticosteroids (dexamethasone 2mg IV every 6 hours)</p>
Dyspnea; tachycardia; skin flushing	Carcinoid Syndrome <sup>26</sup>	<p>Caused by carcinoid tumors most commonly found in the GI tract and lungs</p> <p>Most do not cause this</p>	Symptomatic relief, surgery to remove the cancer, and/or chemotherapy



		syndrome until they're advanced	
Anxiety (refractory to treatment); hypertension (persistent or episodic); abdominal pain; headaches; diaphoresis; palpitations	Pheochromocytoma <sup>27,28</sup>	Causes excess catecholamine release	Initially treat with Phenoxybenzamine (10mg BID and increased by 10-20mg every third day for 7-10 days) prior to surgery  Once BP has decreased and been controlled, add propranolol (10mg QID)  Fluids and surgery
Tachycardia; diaphoresis; nausea/vomiting; abdominal pain; dizziness; weakness	Addisonian Crisis <sup>29</sup>	Caused by extremely low levels of cortisol	Injection of hydrocortisone
Tachycardia; hypertension; insomnia; paresthesias; motor weakness; acute abdominal pain	Acute Porphyria <sup>30</sup>	Measure urinary porphobilinogen (normally 0-4 mg/day...increased to 20-200 mg/L in acute porphyria)	Panhematin (3-4 mg/kg IV once daily for 4 days (if diagnosis is confirmed in the ER, give first dose at this time)  Supportive and symptomatic treatment (to correct electrolyte imbalances)

### Toxic

Presentation	Condition	Pearl/Pitfall	Treatment
Tachycardia; mydriasis; hyperthermia; dry, flushed skin	Anticholinergic Toxicity <sup>31,32</sup>	Anticholinergics include: antihistamines, anti-parkinsonian medications, antipsychotics, antispasmodics, cyclic antidepressants, jimson weed, scopolamine, etc.  Toxidrome Mnemonic: "Hot as a hare, dry as a bone, red as a beet, blind as a bat, mad as a hatter, full as a flask"	Diagnosis should include Fingerstick glucose and EKG  Symptomatic treatment, frequent reassessment, and close observation  Antidote: Physostigmine (1-2mg in <u>adults</u> and 0.02 mg/kg with a maximum of 0.5mg in <u>children</u> ) administered intravenously over a 5-minute period

			<p>-----</p> <p>Atropine should be kept near and given in titrated doses if patients symptoms are reversed too much</p> <p>-----</p> <p>Physostigmine is contraindicated in patients with a QRS interval &gt;100msec</p> <p>For TCA overdose, give IV push of sodium bicarbonate (44-88 mEq in <u>adults</u> and 1-2 mEq/kg in <u>children</u>)</p>
Tachycardia; mydriasis; hyperthermia; diaphoresis; agitation; hypertension; seizures	Sympathomimetics <sup>31,33</sup>	<p>Sympathomimetics include: amphetamines, aminophylline/theophylline, caffeine, cocaine, ephedrine, LSD, PCP, methylphenidate, etc.</p> <p>Toxidrome can mimic hypoglycemia, withdrawal syndromes, and anticholinergic toxicity</p>	<p>Symptomatic treatment, while paying close attention to vital signs and body temperature</p> <p>Oxygen should be administered because of the increased metabolic demand</p> <p>Fluid resuscitation to the point of euvolemia is recommended</p> <p>1<sup>st</sup> line treatment for cocaine toxicity is a benzodiazepine</p>
Tachypnea; hyperpnea; tachycardia; nausea/vomiting; progressive CNS deterioration	Aspirin (Salicylates) <sup>34</sup>	<p>Salicylate toxicity may induce acute lung injury ("non-cardiogenic pulmonary edema")</p> <p>Aspirin toxicity in adults is characterized by a mixed respiratory alkalosis and metabolic acidosis</p>	<p>Therapeutic serum acetylsalicylic acid measurement is 15-30 mg/dL</p> <p>Treat with multiple dose activated charcoal, fluid resuscitation, urine alkalinization (via sodium bicarbonate), and hemodialysis</p>
Tachycardia; hypotension; dysrhythmias; nausea/vomiting;	Toxic Alcohols <sup>31,35</sup>	Acidosis from ethylene glycol or methanol may not be evident until several hours after exposure	Treat with ethanol (loading dose of 10 mL/kg of 10% solution and a maintenance dose

abdominal pain; hyper/hypoventilation		Most patients demonstrate some level of CNS depression, which does not correlate with peak serum concentrations or accumulation of metabolites	of 0.15 mL/kg/hr of 10% solution) or fomepizole (15 mg/kg, then 10 mg/kg every 12 hours for 4 doses, then increase to 15 mg/kg every 12 hours until serum alcohol is < 20 mg/dL) if witnessed, there is clinical suspicion, or when serum concentration of a toxic alcohol is >20 mg/dL
Anxiety; mild tremor; autonomic instability; delirium	Ethanol Withdrawal <sup>36</sup>	<p>Delirium tremens (DT) develop in 5% of patients who develop symptoms of alcohol withdrawal</p> <p>Signs and symptoms of alcohol withdrawal should be evaluated using the Revised Clinical Institute Withdrawal Assessment for Alcohol (CIWA-Ar) scale to aid in determining the severity of the withdrawal</p>	<p>Supportive care is the mainstay of treatment (resuscitation with fluids and replacement of electrolyte deficiencies)</p> <p>Benzodiazepines (lorazepam 1-4mg every 10 minutes as needed) is the major treatment for withdrawal</p>
Anxiety; tachypnea; diaphoresis; restlessness; tachycardia; nausea/vomiting	Opioid Withdrawal <sup>36</sup>	<p>Unlike alcohol withdrawal, opioid withdrawal is not life-threatening</p> <p>Most patients are discharged with outpatient treatment</p>	<p>Treatment is aimed at stabilization of cardiopulmonary status and symptomatic therapy</p> <p>Opioid replacement should be guided by the cause of withdrawal (cessation of prescription meds, methadone therapy for addiction, or decreased recreational intake)</p> <p>20mg PO or 10mg IM of opioids/methadone replacement can reverse withdrawal symptoms without overdose</p> <p>Clonidine (0.1-0.3mg</p>

			<p>every hour) can decrease symptoms</p> <p>Benzodiazepines can decrease symptoms, as well</p>
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## The Emergency Department Approach

Not only do the above conditions have a tendency to emulate anxiety, but infection, electrolyte abnormalities, medication withdrawal, and overdose/toxicity of illicit drugs also have the potential to manifest similar signs and symptoms. When addressing the patient presenting to the ER with complaints of chest discomfort, shortness of breath, and tachycardia (among others previously mentioned), the emergency physician should:

- Assess the patient's airway, breathing, and circulatory status intervening when necessary
- Perform a thorough history regarding medical comorbidities, the onset and duration of symptoms, and current medication/drug use
- Perform a thorough physical exam to include a cardiac work-up and neurological survey
- Utilize the history and physical, as well as, other ancillary studies to make educated decisions regarding further evaluation, treatment, and disposition

## Key Points

- Perform a thorough history and physical exam by first addressing the stability of the patient's condition (airway, breathing, circulatory status)
- Due to anxiety's numerous presentations, it is important to evaluate and differentiate it from a medical emergency
  - Medical → 1<sup>st</sup> presentation of symptoms occurs at age >40, possible fluctuation of consciousness, and autonomic instability<sup>27</sup>
  - Anxiety → 1<sup>st</sup> presentation of symptoms occurs between ages 18-45, family history of anxiety, patient is concerned about losing control, and occurrence of recent/anticipated life event<sup>27</sup>
- Do not hesitate ordering a cardiac work-up in a patient presenting with cardiovascular symptomatology, checking a screening TSH in a patient presenting with complaints of anxiety<sup>27</sup>, or getting a urine drug screen when a toxic cause is suspected
- Benzodiazepines are the recommended short-term management option (clonazepam 0.25mg or alprazolam 0.50mg)

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DEPARTMENT OF THE AIR FORCE  
59TH MEDICAL WING (AETC)  
JOINT BASE SAN ANTONIO - LACKLAND TEXAS



07 SEPTEMBER 2017

MEMORANDUM FOR SGVT  
ATTN: CAPT ASHLEY WERBIN

FROM: 59 MDW/SGVU

SUBJECT: Professional Presentation Approval

Your paper, entitled **Anxiety: What do you need to consider?** presented at/published to **EMDocs.net** in accordance with MDWI 41-108, has been approved and assigned local file #17378.

Pertinent biographic information (name of author(s) title, etc.) has been entered into our computer file. Please advise us (by phone or mail) that your presentation was given. At that time, we will need the date (month, day and year) along with the location of your presentation. It is important to update this information so that we can provide quality support for you, your department, and the Medical Center commander. This information is used to document the scholarly activities of our professional staff and students, which is an essential component of Wilford Hall Ambulatory Surgical Center (WHASC) internship and residency programs.

Please know that if you are a Graduate Health Sciences Education student and your department has told you they cannot fund your publication, the 59th Clinical Research Division may pay for your basic journal publishing charges (to include costs for tables and black and white photos). We cannot pay for reprints. If you are a 59 MDW staff member, we can forward your request for funds to the designated Wing POC at the Chief Scientist's Office, Ms. Alice Houy, office phone: 210-292-8029; email address: [alice.houy.civ@mail.mil](mailto:alice.houy.civ@mail.mil).

Congratulations, and thank you for your efforts and time. Your contributions are vital to the medical mission. We look forward to assisting you in your future publication/presentation efforts.

LINDA STEEL-GOODWIN, Col, USAF, BSC  
Director, Clinical Investigations & Research Support

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# PROCESSING OF PROFESSIONAL MEDICAL RESEARCH/TECHNICAL PUBLICATIONS/PRESENTATIONS

## INSTRUCTIONS

USE ONLY THE MOST CURRENT 59 MDW FORM 3039 LOCATED ON AF E-PUBLISHING

1. The author must complete page two of this form:
  - a. In Section 2, add the funding source for your study [ e.g., 59 MDW CRD Graduate Health Sciences Education (GHSE) (SG5 O&M); SG5 R&D; Tri-Service Nursing Research Program (TSNRP); Defense Medical Research & Development Program (DMRDP); NIH; Congressionally Directed Medical Research Program (CDMRP) ; Grants; etc.]
  - b. In Section 2, there may be funding available for journal costs, if your department is not paying for figures, tables or photographs for your publication. Please state "YES" or "NO" in Section 2 of the form, if you need publication funding support.
2. Print your name, rank/grade, sign and date the form in the author's signature block or use an electronic signature.
3. Attach a copy of the 59 MDW IRB or IACUC approval letter for the research related study. If this is a technical publication/presentation, state the type (e.g. case report, QA/QI study, program evaluation study, informational report/briefing, etc.) in the "Protocol Title" box.
4. Attach a copy of your abstract, paper, poster and other supporting documentation.
5. Save and forward, via email, the processing form and all supporting documentation to your unit commander, program director or immediate supervisor for review/approval.
6. On page 2, have either your unit commander, program director or immediate supervisor:
  - a. Print their name, rank/grade, title; sign and date the form in the approving authority's signature block or use an electronic signature.
7. Submit your completed form and all supporting documentation to the CRD for processing to: [usaf.jbsa.59-mdw.mbx.wing-crd-publications-and-presentations@mail.mil](mailto:usaf.jbsa.59-mdw.mbx.wing-crd-publications-and-presentations@mail.mil). **This should be accomplished no later than 30 days before final clearance is required to publish/present your materials.** If you have any questions or concerns, please contact the 59 CRD/Publications and Presentations Section at 292-7141 for assistance.
8. The 59 CRD/Publications and Presentations Section will route the request form to clinical investigations, 502 ISG/JAC (Ethics Review) and Public Affairs (59 MDW/PA) for review and then forward you a final letter of approval or disapproval.
9. Once your manuscript, poster or presentation has been approved for a one-time public release, you may proceed with your publication or presentation submission activities, as stated on this form. **Note:** For each new release of medical research or technical information as a publication/presentation, a new 59 MDW Form 3039 must be submitted for review and approval.
10. If your manuscript is accepted for scientific publication, please contact the 59 CRD/Publications and Presentations Section at 292-7141. This information is reported to the 59 MDW/CC. All medical research or technical information publications/presentations must be reported to the Defense Technical Information Center (DITC). See 59 MDWI 41-108, *Presentation and Publication of Medical and Technical Papers*, for additional information.
11. The Joint Ethics Regulation (JER) DoD 5500.07-R, *Standards of Conduct*, provides standards of ethical conduct for all DoD personnel and their interactions with other non-DoD entities, organizations, societies, conferences, etc. Part of the Form 3039 review and approval process includes a legal ethics review to address any potential conflicts related to DoD personnel participating in non-DoD sponsored conferences, professional meetings, publication/presentation disclosures to domestic and foreign audiences, DoD personnel accepting non-DoD contributions, awards, honoraria, gifts, etc. The specific circumstances for your presentation will determine whether a legal review is necessary. **If you (as the author) or your supervisor check "NO" in block 17 of the Form 3039, your research or technical documents will not be forwarded to the 502 ISG/JAC legal office for an ethics review.** To assist you in making this decision about whether to request a legal review, the following examples are provided as a guideline:

For presentations before professional societies and like organizations, the 59 MDW Public Affairs Office (PAO) will provide the needed review to ensure proper disclaimers are included and the subject matter of the presentation does not create any cause for DoD concern.

If the sponsor of a conference or meeting is a DoD entity, an ethics review of your presentation is not required, since the DoD entity is responsible to obtain all approvals for the event.

If the sponsor of a conference or meeting is a non-DoD commercial entity or an entity seeking to do business with the government, then your presentation should have an ethics review.

If your travel is being paid for (in whole or in part) by a non-Federal entity (someone other than the government), a legal ethics review is needed. These requests for legal review should come through the 59 MDW Gifts and Grants Office to 502 ISG/JAC.

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If you (as the author) or your supervisor check "YES" in block 17 of the Form 3039, your research or technical documents will be forwarded simultaneously to the 502 ISG/JAC legal office and PAO for review to help reduce turn-around time. If you have any questions regarding legal reviews, please contact the legal office at (210) 671-5795/3365, DSN 473.

**NOTE:** All abstracts, papers, posters, etc., should contain the following disclaimer statement:

***"The views expressed are those of the [author(s)] [presenter(s)] and do not reflect the official views or policy of the Department of Defense or its Components"***

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***"The voluntary, fully informed consent of the subjects used in this research was obtained as required by 32 CFR 219 and DODI 3216.02\_AFI 40-402."***

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<b>PROCESSING OF PROFESSIONAL MEDICAL RESEARCH/TECHNICAL PUBLICATIONS/PRESENTATIONS</b>			
1. TO: CLINICAL RESEARCH	2. FROM: (Author's Name, Rank, Grade, Office Symbol) Ashley Werbin, Capt/O3/959CSPS/59MDW/SGVT	3. GME/GHSE STUDENT: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	4. PROTOCOL NUMBER:
5. PROTOCOL TITLE: (NOTE: For each new release of medical research or technical information as a publication/presentation, a new 59 MDW Form 3039 must be submitted for review and approval.) Anxiety: What do you need to consider?			
6. TITLE OF MATERIAL TO BE PUBLISHED OR PRESENTED: Anxiety: What do you need to consider?			
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